

Fact Sheet



What on Earth is Houston Black Soil?



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Houston Black is an extensive soil series, comprising nearly two million acres in Texas. It occurs in the north part of the state near Bonham and Dallas to south central Texas near San Antonio. Houston Black soils are important agricultural soils. They are used extensively for growing grain sorghum, cotton, corn, small grains, and forage grasses. These soils are also very important in many large urban areas.

Houston Black soils are on nearly level to moderately sloping uplands and formed mainly in calcareous clays and marls of Cretaceous age. Mean annual temperature ranges from 63 to 70 degrees F. and mean annual rainfall ranges from 28 to 42 inches. Extreme wetting and drying cycles accentuates shrinking and swelling to produce the pronounced Vertisol features found in the Houston Black Series.

Soil classification of the Houston Black series is fine, smectitic, thermic, Udic Haplusterts. These soils are classified in the

Vertisol order which is a group of soils that have very high shrink-swell characteristics, clayey texture, and large cracks when dry. The term "fine" refers to the subsoil containing 30 to 60 percent clay. The term "smectitic" refers to the dominant clay mineral in the soil, which is smectite. "Thermic" means the average soil temperature is between 15 and 22 degrees Celsius (59 to 72 degrees F.).

This soil is a Hall of Fame Series and a Benchmark Soil Series. Hall of Fame series are those that have a history of long use in the National Cooperative Soil Survey and represent a broad range of kinds of soils in the United States. Benchmark Soil Series are those series of large extent, and that have special significance to farming, engineering, urban development and other uses. The Houston Black series is recognized throughout the world as a classic Vertisol.

The Professional Soil Scientists of Texas recognize Houston Black as its state soil. Efforts are underway to have the Texas legislature officially recognize Houston Black as the State Soil of Texas.

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